

Response to Office Action of December 23, 2005
Serial No.: 10/647,495
Inventor: Bertram N. Ezenwa
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Amendment to the Drawings:

The amendments to the drawings as suggested by the Examiner is enclosed herewith as replacement sheets.

REMARKS

Initially, the Examiner has objected to the drawings due to certain informalities including the absence of reference numeral "10" in Fig. 1. Applicant provides herewith formalized drawings which are believed to overcome all of the Examiner's objections. As such, withdrawal of the Examiner's objections to the drawings is respectfully requested.

In addition, the Examiner has objected to the specification due to certain informalities. Applicant has amended the specification as suggested by the Examiner. It is now believed that the specification is in proper form for allowance and withdrawal of the Examiner's rejections is respectfully requested.

Referring to the claims, the Examiner has objected to claims 8, 14 and 16 due to certain informalities. Applicant has amended such claims as suggested by the Examiner. As such, withdrawal of the Examiner's objections to claims 8, 14 and 16 is respectfully requested.

The Examiner rejected to claims 13 and 19 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. More specifically, in the Examiner's opinion, it is unclear how a light source (50) can project a grid on the hand of a patient when sensing electrode (25) is disposed between the light source and the hand and would block the projection of light from the light source. However, applicant respectfully disagrees with the Examiner's conclusion and request reconsideration in view of the following comments.

Referring to page 5, lines 20-25 of the specification, applicant specifies that the light source 50 illuminates over the general area of the skin surfaces receiving the sensing light 12. In one embodiment, light source 50 illuminates a grid 56 configured to provide the reference for placement of sensing electrode 25. The Examiner assumes that sensing electrode 25 is not transparent. Alternatively, sensing electrode 25 may include a small electrode centered thereon along with a transparent outer periphery thereby allowing light to project through sensing electrode 25. Other variations of the structure are also contemplated. Consequently, the Examiner's suggestion that claims 13 and 19 fail to comply with the enablement requirement is simply incorrect. As such, withdrawal of the Examiner's rejection of claims 13 and 19 under 35 U.S.C. § 112, first paragraph, is respectfully requested.

It is noted that the Examiner has indicated that claims 26-28 contain allowable subject matter. More specifically, the Examiner has indicated that no prior art of record teaches or fails suggests a method for sensing a signal traveling through a body comprising the step of determining a pressure normalization ratio in response to a pressure signal as set forth in claim 26. Applicant has revised independent claim 25 to incorporate the subject matter of dependent claim 26. It is now believed that independent claim 25 is in proper form for allowance and such action is earnestly solicited.

Claims 27-30 depend either directly or indirect from independent claim 25 and further define a method not shown or suggested in the art. It is believed that claims 27-30 are allowable as depending from an allowable base claim and in view of the subject matter of each claim.

In view of the Examiner's comments with respect to claim 26, applicant has amended independent claims 1 and 15 to incorporate the patentable subject matter. More specifically, claim 1 defines an apparatus for sensing the amplitude of a signal traveling through a body. The signal is generated by the excitation device operatively engaging the body. The apparatus includes a sensing electrode operatively engageable with the body under a pressure downstream of the excitation device for sensing the signal generated by the excitation device. A pressure mounting structure is operatively connected to the sensing electrode for controlling the pressure which the sensing electrode engages the body. A pressure sensor is disposed adjacent the sensor electrode. The pressure sensor generates a pressure signal corresponding to the pressure of which the sensing electrode engages the body. A controller is electrically connected to the pressure sensor for receiving the pressure signal and to the sensing electrode for receiving the signal sensed by the sensing electrode. The controller performs the step of determining a pressure normalization ratio in response to a pressure signal required from the pressure sensor. As noted by the Examiner, none of the cited references shows or suggests such a step for sensing a signal traveling through a body.

In rejecting claims 2, 5, 9, 15, 17-18, 20 and 23-24 under 35 U.S.C. § 103(a) as being unpatentable over Lemmen, U.S. Patent No. 5,327,902 in view of Cho, U.S. Patent No. 6,174,290, the Examiner suggests the controller disclosed in Lemmen '902 patent, when modified by the structure disclosed in the Cho '290 patent, would be capable of being programmed to determine the pressure of normalization ratio, to normalize the sent signal, and to display a pressure value. However, the mere fact that a controller *could be* programmed, does not render the subject matter of claim 1 obvious. Clearly, as indicated by the Examiner, the step of determining a pressure normalization ratio in response to a pressure signal, is not taught or suggested in the prior art of record. Hence, it is believed that claim 1 defines over the cited references and is in proper form for allowance.

Claims 2-3, 5 and 8-14 depend either directly or indirectly from independent claim 1 and further define an apparatus not shown or suggested in the prior art. It is believed that claims 2-3, 5 and 8-14 are allowable as depending from an allowable base claim and in view of the subject matter of each claim.

Claim 15 defines an apparatus for sensing a signal traveling through a body. The signal is generated by an excitation source. The apparatus includes a sensing electrode operatively engageable with the body downstream of the excitation source for sensing the signal generated by the excitation source. A pressure source is configured to provide a pressure at which the sensing electrode engages the body. The pressure sensor is coupled between the pressure source and the sensing electrode. The pressure sensor generates the pressure signal representative of the pressure at which the sensing electrode engages the body. A controller is electrically connected to the pressure sensor and to the sensing electrode. The controller acquires the pressure signal from the pressure sensor and the signal from the sensing electrode; determines a pressure normalization ratio in response to the pressure signal; and normalizes the signal from the sensing electrode based on the pressure normalization ratio.

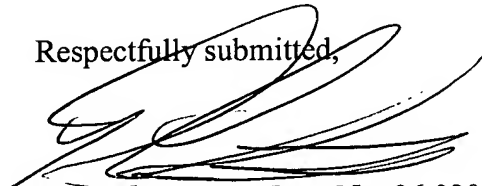
As noted with respect to claim 1, none of the cited references shows or suggests an apparatus for sensing a signal traveling through the body that includes a controller that executes the step of determining a pressure normalization ratio in response to a pressure signal. As noted by the Examiner, the prior art of record does not teach or suggest such a methodology. Hence, it is believed that independent claim 15 defines over the cited references and is in proper form for allowance.

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Claims 16 and 18-22 depend either directly from independent claim 15 and further define an apparatus not shown or suggested in the art. It is believed that claims 16 and 18-22 are allowable as depending from an allowable base claim and in view of the subject matter of each claim.

Applicant believes that the present application with claims 1-3, 5, 8-16, 18-22, 25 and 27-28 is in proper form for allowance and such action is earnestly solicited. Applicant believes that no fees are due with submission. However, the Director is hereby authorized to charge payment of any additional fees associated with this or any other communication or credit any overpayment to Deposit Account No. 50-1170. A duplicate copy of this sheet is enclosed.

Respectfully submitted,



Peter C. Stomma, Reg. No. 36,020

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